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Anti-ESRRB / ERR Beta Antibody (Ligand-binding Domain)

Rabbit Anti Human Polyclonal Antibody
Catalog # ALS17489

Product Information

Application	IHC-P
Primary Accession	O95718
Predicted	Human, Rabbit, Hamster, Monkey, Pig, Bovine, Horse, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	48054
Concentration (mg/ml)	1 mg/ml

Additional Information

Gene ID	2103
Alias Symbol	ESRRB
Other Names	ESRRB, DFNB35, ERRb, ERRbeta-2, ESRL2, Estrogen receptor-like 2, ERR-beta, ERRB2, ERRbeta, NR3B2, Nuclear receptor ERRB2, Orphan nuclear receptor, ERR beta-2, ERR2, Estrogen-related receptor 2, Estrogen-related receptor beta, Steroid hormone receptor ERR2
Target/Specificity	Human ESRRB. BLAST analysis of the peptide immunogen showed no homology with other human proteins, except ESRRG (67%).
Reconstitution & Storage	Immunoaffinity purified
Precautions	Anti-ESRRB / ERR Beta Antibody (Ligand-binding Domain) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ESRRB (HGNC:3473)
Synonyms	ERRB2, ESRL2, NR3B2
Function	[Isoform 3]: Transcription factor that binds a canonical ESRRB recognition (ERRE) sequence 5'TCAAGGTCA-3' localized on promoter and enhancer of targets genes regulating their expression or their transcription activity (PubMed:17920186, PubMed:19755138). Plays a role, in a LIF-independent manner, in maintainance of self-renewal and pluripotency of embryonic and trophoblast stem cells through different signaling pathways including FGF signaling pathway and Wnt signaling pathways. Involved in morula development (2-16 cells embryos) by acting as a regulator at the 8-cell stage (By similarity). Upon FGF signaling pathway activation, interacts with KDM1A

by directly binding to enhancer site of ELF5 and EOMES and activating their transcription leading to self-renewal of trophoblast stem cells. Also regulates expression of multiple rod-specific genes and is required for survival of this cell type (By similarity). Plays a role as transcription factor activator of GATA6, NR0B1, POU5F1 and PERM1 (PubMed:23836911). Plays a role as transcription factor repressor of NFE2L2 transcriptional activity and ESR1 transcriptional activity (PubMed:17920186, PubMed:19755138). During mitosis remains bound to a subset of interphase target genes, including pluripotency regulators, through the canonical ESRRB recognition (ERRE) sequence, leading to their transcriptional activation in early G1 phase. Can coassemble on structured DNA elements with other transcription factors like SOX2, POU5F1, KDM1A and NCOA3 to trigger ESRRB-dependent gene activation. This mechanism, in the case of SOX2 corecruitment prevents the embryonic stem cells (ESCs) to epiblast stem cells (EpiSC) transition through positive regulation of NR0B1 that inhibits the EpiSC transcriptional program. Also plays a role inner ear development by controlling expression of ion channels and transporters and in early placentation (By similarity).

Cellular Location

Nucleus. Cytoplasm {ECO:0000250|UniProtKB:Q61539}. Chromosome {ECO:0000250|UniProtKB:Q61539}